

Self-Watering Seed Starter

AA700

The Lee Valley Self-Watering Seed Starter promotes quick germination, rapid root development and easy transplanting. It uses a time-tested design incorporating an insulated seed tray, a capillary mat, a water reservoir, and a seedling ejection tray. The whole unit is reusable from season to season.

Setting Up Your Tray

1. Fill cavities with a good-quality potting mix and tamp in place with the growing stand; make sure that the mix is firmly packed into all cavities and that the mix is flush with the bottom of the tray to ensure good contact with the capillary mat.
2. Feed the capillary mat through the slots in the growing stand. Smooth the mat so that it is flat on the growing stand, then place the growing stand into the water reservoir.

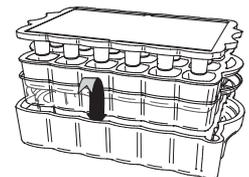
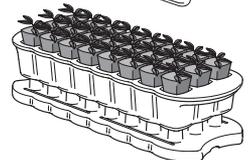
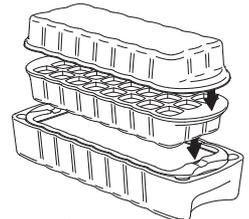
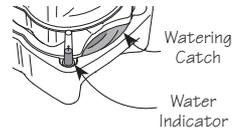
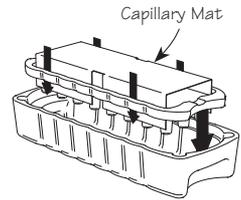
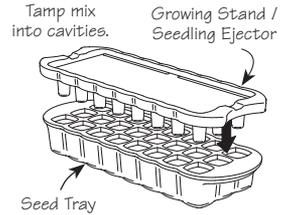
3. The water level inside the water reservoir can be monitored by checking the water indicator, placed into either cavity (situated on diagonally opposite corners). To fill the water reservoir, pour water onto the capillary mat, wetting the entire mat (the water will flow into the reservoir as you pour). Watch the water indicator as you add water. Fill the water reservoir until the plunger is at the *max* line or slightly above.

The unit will hold enough water for 3 to 5 days, depending on the type and age of the seedlings. Periodically monitor the water level. When the plunger is at the *min* line, there is approximately $\frac{1}{4}$ " of water remaining in the water reservoir. To refill the water reservoir, pour water in either watering catch (located at the ends of the water reservoir). **Do not** let the capillary mat dry out or it will need to be wetted again to work.

4. Place the filled seed tray onto the capillary mat, sow seeds into each cavity as desired, and wet the mix appropriately for the type of seeds. Place the clear cover over the seed tray and place the unit where it will receive proper light and heat.

5. When you are ready to transplant the seedlings, remove the seed tray and growing stand (with the capillary mat) from the water reservoir. Remove the capillary mat, and flip the growing stand so that the cones point upward. Align the holes on the underside of the seed tray with the cones, and gently push the seed tray down on the cones. The plugs will be pushed clear of the seed tray for transplanting. If you want, you can also eject only one or two rows of plugs by positioning the tray accordingly.

6. Over time, the capillary mat may become less effective as it gets clogged with small roots and potting mix. Rinsing the mat under running water will solve this. When you have finished using the seed starter, thoroughly rinse off the mix and fertilizer under running water, then soak for 1 hour in a diluted bleach solution (1 tbsp. bleach to 1 gallon of water). When everything is dry, the parts of the unit can then be nested for storage.



Store dry mat inside water reservoir.

Growing Tips

Potting Mix

Potting mixtures that contain sphagnum or peat moss are much better able to absorb water from the capillary mat than traditional potting soil. These potting mixtures are commercially available and are commonly called “soilless” mixes. They are a mixture of peat moss, vermiculite and other ingredients. We have found that the fine powdery consistency of some commercial mixtures produces a mix that is hard to dampen when dry, stays too moist once fully wetted, and can slide out of the base of the cavities before seedlings have a well-developed root system.

The following soilless mix is easily prepared and does not have these problems. It is easy to dampen, stays moderately wet and holds together well:

- 3 parts milled sphagnum moss
- 2 parts perlite
- 1 part vermiculite

Planting Your Seeds

It is best to group seeds with similar needs inside the seed starter. For instance, tomato and eggplant seeds will both germinate at an ideal temperature of 85°F (29°C) and could both be started in the same seed starter. Cool spring onions that germinate at 75°F (24°C) and melons that require warmer temperatures of 90°F (32°C) to germinate would not make good partners. Refer to the seed packaging for the specific requirements of a particular variety.

Seed packets will also recommend how deeply the seeds should be planted. Most can be planted at 2½ times their size, but some varieties require certain conditions. Some varieties require complete darkness or must be frozen before they will start. For further information, you can refer to any of the many seed propagation books that are available.

Water, Light and Heat

This unit will water itself automatically as long as the water reservoir always has water in it and the capillary mat doesn't dry out. Monitor the water level with the water indicator and add water before the water reservoir is completely empty (usually every 3 to 5 days). If the capillary mat does happen to dry out, remove the seed tray and pour water over the capillary mat. The capillary mat will only draw water if it has been pre-wetted first.

Use artificial lights to keep your plants from getting leggy. Fluorescent lights should be put as close as possible to the leaves without touching them. Make sure you raise the lights as the plants grow. Keep the lights on for 14 to 16 hours every day.

Because the seed tray and water reservoir are made of an insulated material, you do not need to use heating cables or mats under them. Instead, make sure the ambient air temperature is between 75°F to 80°F (24°C to 27°C) to ensure optimum germination.

Fertilizer and Transplanting

Seedlings need very little fertilizer. If you are using a commercial potting mix, it may already have a fertilizer in it. Check the bag for instructions. Otherwise, use a water-soluble fertilizer at half strength. Add it to the water reservoir to give continuous feeding.

In 4 to 8 weeks, most seedlings will be ready for transplanting; however, if you will be planting them outdoors, they will need to be hardened off. Gradually harden them by exposing them to wind and direct sunlight over several days. Start with just one or two hours of exposure the first day and increase this over the week until they can take full sun for a whole day. If they start to wilt, move them to a shaded, wind-free area until they recover (usually within a few hours).